



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/712,540

11/13/2003

Michael V. Konshak

2003-040-DSK

9185

51344

7590

01/04/2006

STORAGE TECHNOLOGY CORPORATION
ONE STORAGE TEK DRIVE, MS-4309
LOUISVILLE, CO 80028-4309

EXAMINER

CHANG, YEAN HSI

ART UNIT

PAPER NUMBER

2835

DATE MAILED: 01/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

6) ✓

Office Action Summary	Application No. 10/712,540	Applicant(s) KONSHAK, MICHAEL V.	
	Examiner Yean-Hsi Chang	Art Unit 2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-14 is/are allowed.
- 6) ☒ Claim(s) 15-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Sands et al. (US 6,064,569).

Sands teaches a combination of a multiple disk drive storage apparatus and a plurality of removable disk drive modules (fig. 1), the disk drive storage apparatus including a housing (12) having a front side (14) and a motherboard (22) disposed within the housing, the motherboard having at least one light emitting member (LED 28), wherein each of the disk drive modules comprises: a disk drive (48), a one piece molded carrier body (30) that at least partially encloses the disk drive (shown in fig. 2), the carrier body having a front portion and a rear portion (shown in fig. 2), the front portion being disposed in the front side of the housing (shown in fig. 1) and the rear portion being disposed within the housing when the disk drive module is placed in the housing (also shown in fig. 1), a light pipe (60) integrally formed as part of the carrier body (shown in fig. 4) that extends from the rear portion of the carrier body to the front portion of the carrier body (shown in fig. 4), the light pipe being disposed adjacent the

Art Unit: 2835

light emitting member inside the housing (shown in fig. 2) and transmitting light to the front portion of the carrier body (claims 15-16); and wherein the light emitting member is a status light that indicates an operational condition of the disk drive as detected by the motherboard (see col. 3, lines 49-52) (claim 17).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sands et al.

Sands discloses the claimed invention except indicating the carrier being molded from a polycarbonate polymer. It would have been obvious to one having ordinary skill in the art at the time the invention was made to select a polycarbonate polymer material for the carrier, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use of its flexibility and elasticity. *In re Leshin*, 125 USPQ 416 (CCPA 1960), MPEP §2144.07.

Allowable Subject Matter

Art Unit: 2835

5. Claims 1-14 are allowed.

6. The following is a statement of reasons for the indication of allowable subject matter: The best prior art of record, Brunel et al. (US 5,921,644), and Sands et al. (US 6,064,569), taken alone or in combination, fails to teach or fairly suggest a multiple disk drive storage apparatus and a plurality of removable disk drive modules, wherein the plurality of removable disk drive modules comprises at least a carrier body having an integrally formed ejection spring exerting a biasing force to disconnect a connector of the disk drive module and to urge the disk drive module out of a housing of the storage apparatus as set forth in claims 1 and 11. Claims 2-9, and 12-14 are dependent claims from claims 1, and 11, respectively.

Response to Arguments

7. Applicant's arguments filed 12/7/05 have been fully considered but they are not persuasive. Applicant argues that "There is no disclosure in the Sands patent of a light pipe integrally formed as part of the carrier body that extends from the rear portion of the carrier body to the front portion of the carrier body, as specifically recited in claim 15". It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Sands by forming the light pipe integrally as part of the carrier body, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cruz et al. (US 6,608,750 B2).
9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Correspondence

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yean-Hsi Chang whose telephone number is (571) 272-2038. The examiner can normally be reached on 07:30 - 16:00, Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the Art Unit phone number is (571) 272-2800, ext. 35. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-8558.

Yean-Hsi Chang
Primary Examiner
Art Unit: 2835
January 2, 2006



YEAN-HSI CHANG
PRIMARY EXAMINER